

PRELIMINARY ASSESSMENT

Recycling Place

12 West Southern
Mesa, Arizona 85210
Maricopa County

EPA ID#: AZ0001039270

STATE ID#: 1351



PREPARED BY:
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**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF WASTE PROGRAMS
REMEDIAL PROJECTS SECTION
PREREMEDIAL UNIT**

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SECTION I

Preliminary Assessment Recycling Place

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA), Region IX, under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), has tasked the Arizona Department of Environmental Quality (ADEQ) to conduct a Preliminary Assessment (PA) of the Recycling Place site in Phoenix, Maricopa County, Arizona.

The purpose of the PA is to review existing information on the site and its environs to assess the threat(s), if any, posed to public health, welfare, or the environment and to determine if further investigation under CERCLA/SARA is warranted. The scope of the PA includes the review of information available from federal, state, and local agencies and performance of an onsite reconnaissance visit.

Using these sources of existing information, the site is then evaluated using the EPA's Hazard Ranking System (HRS) criteria to assess the relative threat associated with actual or potential releases of hazardous substances at the site. The HRS has been adopted by the EPA to help set priorities for further evaluation and eventual remedial action at hazardous waste sites. The HRS is the primary method of determining a site's eligibility for placement on the National Priorities List (NPL). The NPL identifies sites at which the EPA may conduct remedial

response actions. This report summarizes the findings of these preliminary investigative activities.

The Recycling Place site was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) on February 27, 1995 (AZ0001039270). The site was into CERCLIS as a result of its proximity and potential contribution to the ADEQ Water Quality Assurance Revolving Fund (WQARF) South Mesa (SM) project area.

1.1 Apparent Problem

The apparent problems at the site are:

- * The Recycling Place site is located inside the South Mesa (SM) WQARF Project Area, an area of known Volatile Organic Compound (VOC) groundwater contamination.
- * Municipal wells in area have detects of VOCs.

2.0 SITE DESCRIPTION

2.1 Location

The Recycling Place site is located at 12 West Southern Avenue, Phoenix, Maricopa County, Arizona, 85210. (See Figure 2-1: Site Location Map of Recycling Place) (1)

The USGS cadastral location is T1N R5E S27 (SE¼,SW¼,SW¼)(dcc), Gila and Salt River baseline and meridian, Mesa, Arizona 7.5 minute quadrangle. The geographic coordinates are 33 23'40"N/111 49'05"W. (2)

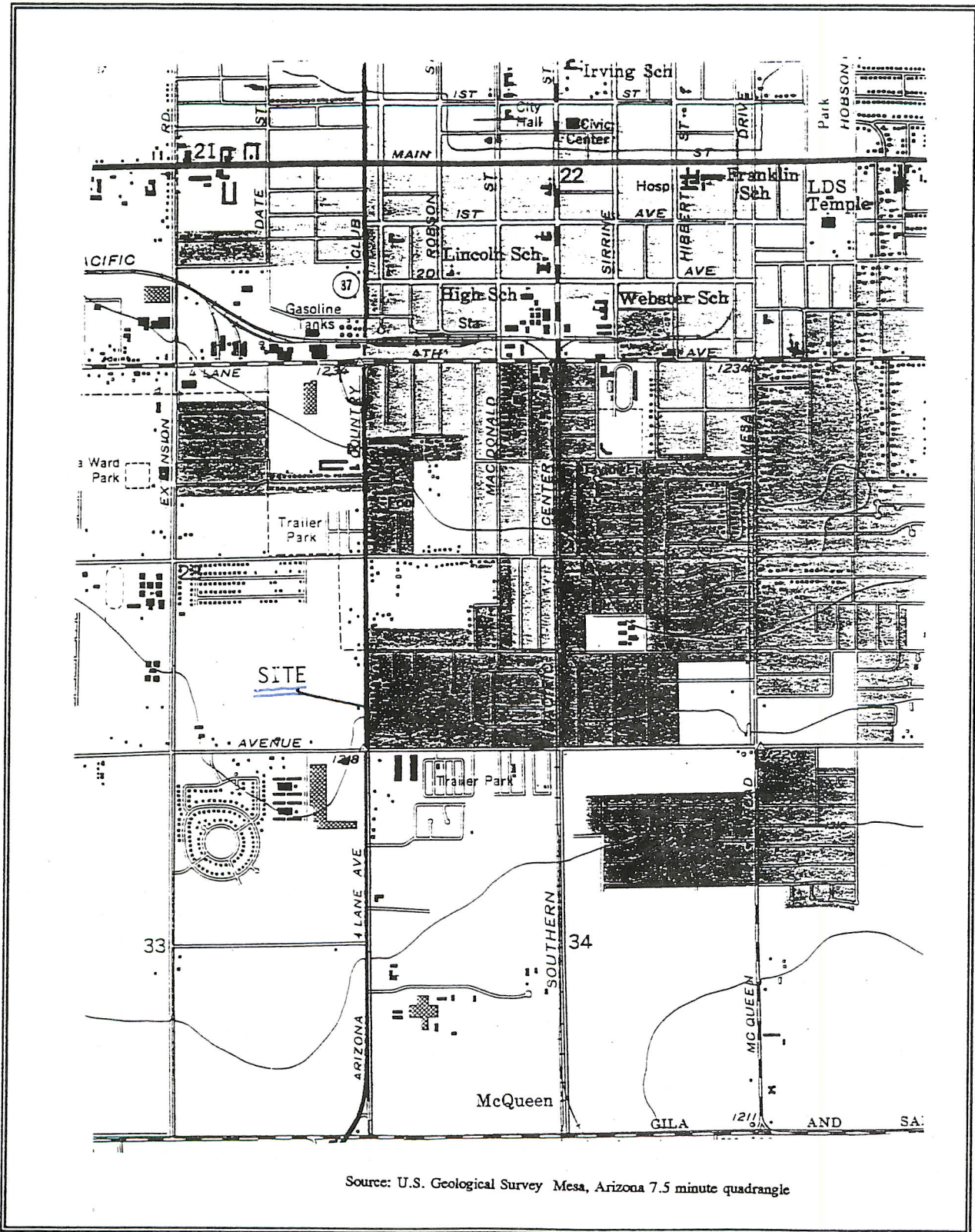


Figure 2-1 Site Location
Recycling Place, Inc.

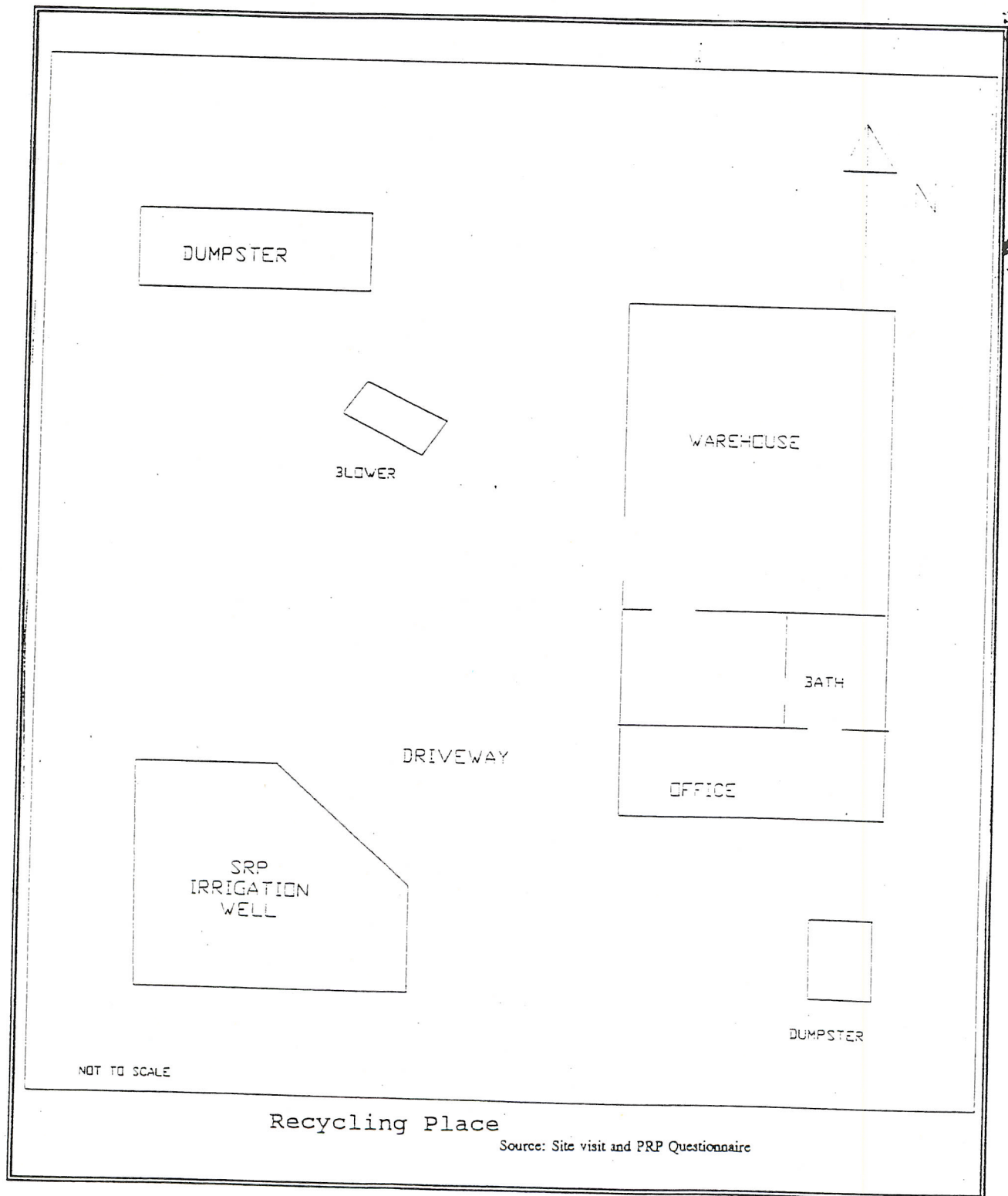


Figure 2-2 Site Layout

2.2 Site Description

The Recycling Place site is located on approximately 1.5 acres of land in an industrial-zoned area in Mesa, Maricopa County, Arizona. The property parcel number is 13932016C. The site is bordered to the south by Southern Avenue, to the west by a railroad spur, to the north by Wonder Clean and to the east by Wonder Clean and Michelin Tire. The site includes a building which contains a small office, bathroom, and an inside warehouse area. (See Figure 2-2: Recycling Place Site Layout). The entire property is fenced and has two secured gates (south and east sides). Approximately half of the site is either covered by concrete or asphalt. (3) (See Figure 2-2)

According to files review, there are no underground storage tanks (USTs) on site. No indications of underground storage tanks, wells, pits, landfills, or surface impoundments were observed on site during the site visit .(3)

2.3 Operational History

Recycling Place (a.k.a. EMCO Recycling) has operated at 12 West Southern Avenue, Mesa, Maricopa County, Arizona since 1989 when the owner, George Moorehead, acquired the facility. The business operates as a transfer station only. Materials being collected are limited to aluminum, aluminum cans, batteries, radiators, copper, and stainless steel. At any one time, the amount of recyclable materials is approximately 40 batteries, three 5-gallon buckets of copper shavings, 20 radiators, and two large dumpsters of aluminum, stainless steel, and copper products. The business employs three employees and operates six (3) days per week.

According to the Cole's Directory, Dutchmasters, a retail paint store, occupied the site from 1986 to 1989. Both Cole's and Polk's Directories show no listing for previous years. The Mesa Public Library had three aerial maps of the Recycling Place site. Aerial maps dated August 1983 and August 1979 showed the building but no outside storage. In the aerial map dated October 1973, no building was present and the site did not appear to be sectioned off into the present status. The site appeared to be part of a large parcel which was used as a lumber storage yard. (4,5)

2.4 Regulatory Involvement

STATE OF ARIZONA

ADEQ maintains files for dry well registration. Dry wells are designed specifically to collect storm water runoff. Arizona law requires dry wells to be registered since they provide a direct route for contamination to reach the subsurface. As of June 1995, there was no listing of a registered dry well for Recycling Place and no dry wells were evident during the site visit. (2,3)

According to the ADEQ Underground Storage Tank (UST) Section Database, the Recycling Place site has no underground storage tanks (USTs) and no USTs were evident during the site visit. (6)

The Aquifer Protection Permit (APP) Section issues permits to facilities if they discharge pollutants to an aquifer directly, or to the land surface or vadose zone, in a way that there is a probability that the pollutants can reach the aquifer. Prior to the APP Program, a facility would

have had to file for a Notice of Disposal (NOD). According to the Water Pollution Compliance Database , Recycling Place has never filed a NOD nor an APP application. This database also tracks if any facility has obtained a National Pollution Discharge and Elimination System (NPDES) Permit. There is no NPDES permit for Recycling Place. (7)

ADEQ's Resource, Conservation and Recovery Act (RCRA) database listings maintained by the Hazardous Waste Compliance Unit had no listing for Recycling Place as of September 7, 1995, and the site is not listed in the RCRA Compliance Log. (8)

The Arizona Industrial Commission maintains information pertaining to hazardous substance usage and management which may be present in the form of a complaint filed by past or present employees or inspection reports completed by the Occupational Safety and Health Administrative (OSHA) compliance personnel. According to their records, there is no file for Recycling Place. (9)

LOCAL

The Mesa Fire Department has no violations on file for Recycling Place. (10)

3.0 HAZARD RANKING SYSTEM FACTORS

3.1 Sources of Contamination

The potential sources of contamination at the Recycling Place site are:

- * Storage area for temporary storage of batteries and radiators.

According to the facility manager, although radiators are stored at the site, only drained and dry radiators are accepted. Although batteries are kept at the site, they are wrapped in plastic,

placed on pallets, and stored inside a building on concrete flooring. No spills or stained areas were observed during the site visit. (3)

3.2 Groundwater Pathway

3.2.1 Hydrogeological Setting.

The Phoenix metropolitan area is located within the Phoenix Active Management Area (AMA) which was created by the Groundwater Management Code of 1980 (Arizona Revised Statutes, Section 45-401 through 45-637). Mesa is located within the Salt River Valley Basin (SRVB). The SRVB is divided into East and West Sub-basins. The site is situated in the East Salt River Valley Sub-basin, one of the seven sub-basins that comprise the Phoenix AMA. (11)

The East Sub-basin is a broad alluvial basin floored with Precambrian crystalline rock. Above the Precambrian basement, in ascending order, are Tertiary extrusive rocks and Tertiary and Quaternary valley fill divided into the Red Unit, Lower Unit, Middle Unit, and Upper Unit. These alluvial deposits are the primary source of groundwater in the subbasin. (12)

The Red Unit is made up primarily of well-cemented red beds of coarse-grained materials. In the South Mesa area, this unit is about 500 feet thick, but it is not a productive source of groundwater. (12)

The Lower Unit includes mudstone, clay, silt, conglomerate, sand, and gravel, interbedded with andesitic basalt. The presence of gypsiferous and anhydrite mudstone indicates deposition in a closed basin. In the South Mesa area, this unit is about 600 to 700 feet thick. (12)

The Middle Unit, approximately 750 feet thick in South Mesa, is the area's principal aquifer. It is composed of silt, siltstone, and silty sand and gravel laid down in a closed basin. In general, the Middle Unit is weakly consolidated. In the South Mesa area, wells in this unit may produce as much as 1,000 gallons of water per minute, and the unit's saturated thickness can reach 500 feet. (12)

The Upper Unit, made up of gravel, sand, and silt laid down after a through-flowing drainage was established, is 200 to 250 feet thick in the South Mesa area and is generally unsaturated. (13)

Surface soil in the South Mesa area is classified as a Continue Clay Loam. The permeability of the Continue clay loam is low (2.0 to 0.63 inches per hour). (14) Permeability of the unsaturated zone is difficult to assess. The Upper Unit contains sand layers, but it also contains clay horizons which may impede recharge and may also create areas of perched groundwater. Using the general description of the well drillers' logs, the permeability of the unsaturated zone can be estimated to range from 10^{-3} to 10^{-5} centimeters per second. (12)

Recent investigations by ADEQ in the South Mesa (SM) area included installation of several shallow monitor wells. Sampling data from February 1996 indicated that depth to water

ranged from 111.48 to 123.04 feet bls. The groundwater flow direction in the upper aquifer is generally to the north-northeast.

The climate in the metropolitan Phoenix area is arid. Annual evaporation greatly exceeds annual precipitation. Precipitation is heaviest in winter. The calculated net precipitation for the months of November through April is -16.8 inches. (14)

3.2.2 Groundwater Targets.

There are nine active City of Mesa (COM) wells (COM #22, COM # 11, COM #13, COM #14, COM #9, COM #12, COM #15, COM #20, and COM #24) with 4-miles of the Recycling Place site. These wells serve approximately 11,781 people. (15) Table 1 lists the active wells in the area. (15)

3.2.3 Groundwater Pathway Conclusion

There has been no documented release to groundwater and the concerns for the Groundwater Pathway for the site are:

- * Low precipitation
- * Moderately slow permeability rate of the soil
- * Hazardous substances appear to be limited to 30 batteries which are wrapped in plastic, placed on pallets, and stored inside a building on concrete flooring.

Table 1: Acre-Feet of Groundwater Withdrawn from and the Population Served by Wells within 4 Miles of the Recycling Place Site						
Distance	Cadastral	ADWR#	Drinking Water System	AF* of GW Withdrawn	Population Served	
1/2-1 mile	(D-0105) 04daa	55-517843	City of Mesa #22	171.18	1,309	
1-2 miles	(A-01-05) 22aaa	55-629619	City of Mesa #7	0	0	
1-2 miles	(A-01-05) 15dbd	55-629599	City of Mesa #8	0	0	
1-2 miles	(A-01-05) 22edc	55-629601	City of Mesa #10	0	0	
1-2 miles	(A-01-05) 22bbb	55-629602	City of Mesa #11	5.24	1,309	
1-2 miles	(A-01-05) 22ddd	55-629604	City of Mesa #13	423.91	1,309	
1-2 miles	(A-01-05) 26baa	55-629605	City of Mesa #14	41.22	1,309	
1-2 miles	(A-01-05) 21dbb	55-629607	City of Mesa #16	0	0	
2-3 miles	(A-01-05) 14bcc	55-629600	City of Mesa #9	99.34	1,309	
2-3 miles	(A-01-05) 15dbe	55-629603	City of Mesa #12	28.82	1,309	
2-3 miles	(A-01-05) 24daa	55-629606	City of Mesa #15	452.03	1,309	
2-3 miles	(D-01-05) 06uda	55-508798	City of Mesa #20	357.85	1,309	
3-4 miles	(A-01-05) 12bba	55-523556	City of Mesa #24	184.06	1,309	

* Acre-feet of groundwater withdrawn

3.3 Surface Water Pathway Conclusion

There has been no release to surface water and the concerns for the Surface Water Pathway for the site are:

- * Surface water is not used for human consumption.
- * Nearest surface water is the Tempe Canal which is located about four miles from the site. The canal is bermed and elevated.
- * Intervening structures are between the site and the nearest surface water.

3.4 Soil Exposure and Air Pathway Conclusion

The nearest workplace is the site itself, which currently has no employees. (1,3) Within a four-mile radius of the site, there are no Federal or State endangered species, critical habitat, wetlands, or wildlife area. (16)

Approximately half of the site is either paved with concrete or asphalt, which are free of stains and in good condition. The entire site is fenced which includes two secured gates. (3)

The closest school to the site is Lincoln Elementary School, which has an enrollment of 1,075 students. (17)

The estimated population is:

Table 2: Population Within 4 Miles of the Recycling Place Site	
Note: Population taken from tract survey.	
Distance	Population
0-1/4 mile	11,659
1/4-1/2 mile	4,541
1/2-1 mile	21,834
1-2 miles	60,785
2-3 miles	112,014
3-4 miles	77,035
Total	287,868

Reference (18)

There have been no documented non-permitted releases of contaminants to the air or soil from the Recycling Place site. The concerns for the Soil Exposure and Air Pathway for the site are:

- * The site is fenced to prevent access to the general public.
- * No population living directly on site.

4.0 EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40 CFR 300.415 (b) (2)] authorizes the EPA to consider emergency response actions at those sites which pose an imminent threat to human health or the environment. For the following reasons a referral to Region IX's Emergency Response Section does not appear to be necessary:

- * Hazardous substances on site are adequately contained. Only drained and dry radiators are accepted. Batteries are wrapped in plastic, placed on pallets, and stored inside a building on concrete flooring.

5.0 SUMMARY

The Recycling Place site is located at 12 West Southern Avenue, Phoenix, Maricopa County, Arizona. The USGS cadastral location is T1N, R5E, S27 (SE $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$)(dcc), Gila and Salt River baseline and meridian, Mesa, Arizona 7.5 minute quadrangle. The geographic coordinates are 33 23'40"N/111 49'05"W. The site is situated on approximately 1.5 acres located in an industrial-zoned area.

There was no information regarding the site's regulatory or permit history dealing with hazardous substances located in record searches with Arizona Department of Environmental Quality (ADEQ) Drywell Registry; ADEQ Resource, Conservation, and Recovery Act (RCRA) database, ADEQ Aquifer Protection Program (APP) Section; ADEQ Underground Storage Tanks (UST) Section; or ADEQ Emergency Response Logbooks.

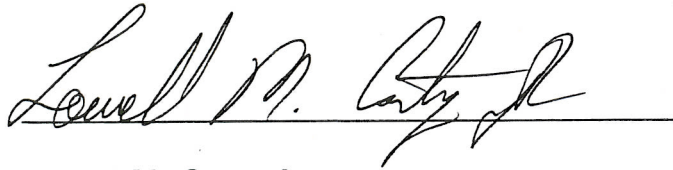
There has been no documented release to groundwater. Approximately half of the site is paved with either concrete or asphalt, which is in good condition. The entire site is fenced.

The pertinent Hazard Ranking System factors associated with this site are:

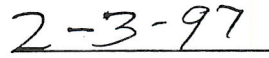
- * The entire site is fenced.
- * There are no residents, day care centers, or schools located on or within 200 feet of the site.
- * Approximately half the site is either covered by asphalt or concrete.
- * Nearest surface water is located four miles from the site, is bermed and elevated.

* Intervening structures are between the site and the nearest surface water.

6.0 ADEQ MANAGEMENT REVIEW/CONCURRENCE:

A handwritten signature in cursive script, reading "Lowell M. Carty Jr.", written over a horizontal line.

Lowell M. Carty Jr.

A handwritten date "2-3-97" written over a horizontal line.

Date

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IX

Site Name: Recycling Place EPA ID#: AZ0001039270

Alias Site Names: _____

City: Mesa County or Parish: Maricopa State: Arizona

Refer to Report Dated: _____ Report type: Preliminary Assessment Packet

Report developed by: ADEQ/ Janet L. Bollmann

DECISION:

☒ 1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:

☒ 1a. Site does not qualify for further remedial site assessment under CERCLA (Site Evaluation Accomplished - SEA)

☐ 1b. Site may qualify for further action, but is deferred to: ☐ RCRA ☐ NRC

☐ 2. Further Assessment Needed Under CERCLA:

2a. (optional) Priority: ☐ Higher ☐ Lower

2b. Activity Type: ☐ PA ☐ SI ☐ ESI ☐ HRS evaluation

☐ Other: _____

DISCUSSION/RATIONALE:

No evidence of release of hazardous substances

Report Reviewed and Approved by: J M Johnson Signature: J M Johnson Date: 9-25-97

Site Decision Made by: J M Johnson Signature: J M Johnson Date: 9-25-97

8.0 REFERENCES

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11. Reeter, R.W., and R.H. Remick, Maps Showing Groundwater Conditions in the West Salt River, East Salt River, Lake Pleasant, Carefree, and Fountain Hills Sub-Basins of the Phoenix Active Management Area, Maricopa, Pinal, and Yavapai Counties, Arizona Department of Water Resources, Hydraulic Map Series, Report Number 12, July 1986.
12. Laney, R.L., Hahn, M.E., 1986. Hydrology of the Eastern Part of the Salt River Valley Area, Maricopa and Pinal Counties, Arizona, U.S. Geological Survey, Water Resources Investigation Report 86-4147.
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15. 1994 Annual Water Withdrawal and Use Report - Provider Summary, Prepared by: City of Mesa, Prepared for: Arizona Department of Water Resources, March 31, 1995.
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SECTION II